

DOCKET NO: 293602US0PCT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :  
ORAL AYDIN, ET AL. : EXAMINER: ZHAO, X. S.  
SERIAL NO: 10/588,213 :  
FILED: AUGUST 2, 2006 : GROUP ART UNIT: 1714  
FOR: METHOD AND DEVICE FOR THE :  
APPLICATION OF AT LEAST TWO  
CHEMICALLY DIFFERENT FLOWING  
MEDIA

APPEAL BRIEF

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

This is an appeal of the Final Rejection dated September 2, 2009. A Notice of Appeal was timely filed on February 2, 2010.

I. REAL PARTY IN INTEREST

The real party in interest in this appeal is BASF SE, having an address at 67056 Ludwigshafen, Germany.

II. RELATED APPEALS AND INTERFERENCES

Appellants, Appellants' legal representative and the assignee are aware of no appeals, interferences, or judicial proceedings which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF THE CLAIMS

Claims 12-24 stand rejected. Of these claims, the rejection of Claims 18-19 and 21-23 is appealed. The rejection of Claims 12-17, 20 and 24 is not appealed. Claims 1-11 have been canceled.

IV. STATUS OF THE AMENDMENTS

An amendment under 37 CFR 1.116 was filed on January 4, 2010. In an Advisory Action dated January 27, 2010, the amendment was refused entry. A petition to enter the amendment filed February 2, 2010, which would have incorporated the subject matter of Claim 13 into Claim 12, was denied in a decision mailed April 15, 2010.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

Since only dependent claims are appealed, and no rule prescribes such a situation, below is a summary of the invention as claimed in Claim 12, from which all the appealed claims depend or ultimately depend, and appealed Claims 18-19 and 21-23, mapped out below, with reference to page and line numbers in the specification added in **[bold]** after each element.

Claim 12 is listed in the CLAIMS APPENDIX for the Board's convenience, although the rejection of this claim is not appealed.

Claim 12: A process for applying at least two chemically different flowable media to a substrate, **[page 1, lines 10-13]** comprising the following step:

- a) applying at least two chemically different flowable media, at least one

medium being an aqueous polymer dispersion, to said substrate which is in the form of a web continuously in one operation **[page 4, lines 12-16]** via a multiple cascade die, **[page 4, line 23]** wherein:

- i) the total amount of the multilayer application ranges from 2 g/m<sup>2</sup> to 200 g/m<sup>2</sup> **[page 4, line 26]** and
- ii) the ratio of the thicknesses of the individual layers within the multilayer application to one another ranges from 0.1 to 100. **[page 4, line 27]**

Claim 18: The process as claimed in claim 12, wherein two layers of cationic and anionic polymers are applied whose characteristic upon being layered tend toward gelling or coagulation. **[page 5, lines 7-9 and page 7, lines 22-24]**

Claim 19: The process as claimed in claim 12, wherein the two layers are a combination of cationic polymer solutions with anionic dispersions. **[page 7, lines 24-25]**

Claim 21: The process as claimed in claim 12, wherein one of the chemically different layers is of a polyisocyanate, polyepoxides or polyacyridines and another chemically different layer is a dispersion. **[page 7, lines 29-31]**

Claim 22: The process as claimed in claim 21, wherein a layer comprising a cross-linking agent is applied with said at least two chemically different flowable media layers. **[page 5, lines 17-19 and page 7, lines 33-34]**

Claim 23: The process as claimed in claim 12, wherein said at least two chemically different dispersions are applied as individual layers in one operation and are selected from the group consisting of styrene-butadiene dispersions, acrylate, ethylene, vinylacetate dispersions and polyurethane dispersions, wax emulsions and silicone emulsions as release coat (antistick layer). **[page 5, lines 20-24 and page 7, lines 36-39]**

## VI. GROUNDS OF REJECTION

### Ground (A)

Claims 12, 13, 15-17 and 20 stand rejected under 35 USC 102(b) as anticipated by GB 1,276,381 (Hughes et al).

### Ground (B)

Claim 14 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Hughes et al in view of US 2003/0134093 (Kitamura et al).

### Ground (C)

Claims 18-19 and 21-23 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Hughes et al in view of US 6,485,898 (Yoshioka et al).

### Ground (D)

Claim 24 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Hughes et al in view of Yoshioka et al, and further in view of US 5,254,661 (Wilson).

VII. ARGUMENT

Grounds (A), (B) and (D) are moot in view of the non-appeal of the claims subject to these grounds. Thus, only Ground (C) remains.

Ground (C)

Claims 18-19 and 21-23 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Hughes et al in view of US 6,485,898 (Yoshioka et al). The rejection is untenable and should not be sustained.

The objective sought after in the present invention is the capability to apply two flowable, but chemically different media, to moving surfaces in one operation. The discovery of the invention, among other things, is for the media to react with one another and for high coating speeds to be achieved onto a substrate which can be in a web form in order to produce laminates, as described in the specification at page 4, lines 12-16.

By means of the present process it is now possible to apply at least two chemically different flowable media such as aqueous solutions of polymers, dispersions or combinations thereof, for example, using a multiple cascade die which has at least two outlets. The total amount of the media emerging from the multiple cascade die, which is of at least two-stage design, is between 2 to 200 g/m<sup>2</sup>, it being possible for the ratio of the individual layers to one another to be varied between 0.1 and 100. In this way it is possible to apply an extremely thin adhesive layer to a backing layer, with both layers emerging simultaneously to two-dimensional layer kind, one atop the other and continuously, from a cascade die of at least two-stage design and coming to lie atop a web-form substrate moving at high speed past the exit apertures of the multiple cascade die, as described in the specification at page 4, lines 21-32.

Hughes et al discloses a method of coating a surface or object with a plurality of layers, each of which is a liquid coating composition. In the process the surface or object is moved along a path through a coating zone whereby a composite layer is formed that is comprised of a plurality of distinct juxtaposed layers. Each layer is formed from a free-falling curtain which extends transversely of the path and impinges on the surface or object to deposit a plurality of distinct superposed layers. While Hughes et al discloses (page 7, lines 61 to 66) that exceedingly thin layers of material can be applied of a maximum of about 0.017 cm and may be as low as 0.001 cm, there is no disclosure or suggestion of the limitations in the present claims of a multilayer application ranging from 2 g/m<sup>2</sup> to 200 g/m<sup>2</sup> and having a ratio of layer thicknesses that ranges from 0.1 to 100.

Yoshioka et al does not remedy the deficiencies of Hughes et al. Indeed, without the present disclosure as a guide, one of ordinary skill in the art would not have combined Yoshioka et al with Hughes et al, but if combined, would not have resulted in the present invention.

#### Claim 18

Yoshioka et al relates to a photothermographic material that is comprised of a non-photosensitive silver salt of an organic acid, a photosensitive silver halide, a reducing agent for silver ions and a binder. There is no disclosure or suggestion therein that would motivate one of ordinary skill in the art to practice an embodiment of depositing plural numbers of layers onto a substrate from a multi-film forming applicator device where two material layers are such that, when normally placed into contact with each other, tend to gel or coagulate, as in Claim 18.

Claims 18 and 19

While Yoshioka et al may broadly list anionic, nonionic and cationic polymers as a dispersing aid does not suggest separate layers of anionic and cationic polymers, respectively, as in Claims 18 and 19.

Claims 21-23

Nor does Yoshioka et al disclose or suggest two flowable media for the materials recited in Claims 21-23.

For all the above reasons, it is respectfully requested that the rejection be REVERSED.

VIII. CONCLUSION

For the above reasons, it is respectfully requested that all the rejections be REVERSED.

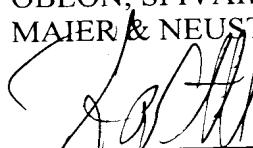
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CLAIMS APPENDIX

Claim 12. A process for applying at least two chemically different flowable media to a substrate, comprising the following step:

b) applying at least two chemically different flowable media, at least one medium being an aqueous polymer dispersion, to said substrate which is in the form of a web continuously in one operation via a multiple cascade die, wherein:

- i) the total amount of the multilayer application ranges from 2 g/m<sup>2</sup> to 200 g/m<sup>2</sup> and
- ii) the ratio of the thicknesses of the individual layers within the multilayer application to one another ranges from 0.1 to 100.

Claim 18. The process as claimed in claim 12, wherein two layers of cationic and anionic polymers are applied whose characteristic upon being layered tend toward gelling or coagulation.

Claim 19. The process as claimed in claim 12, wherein the two layers are a combination of cationic polymer solutions with anionic dispersions.

Claim 21. The process as claimed in claim 12, wherein one of the chemically different layers is of a polyisocyanate, polyepoxides or polyacyridines and another chemically different layer is a dispersion.

Claim 22. The process as claimed in claim 21, wherein a layer comprising a cross-linking agent is applied with said at least two chemically different flowable media

layers.

Claim 23. The process as claimed in claim 12, wherein said at least two chemically different dispersions are applied as individual layers in one operation and are selected from the group consisting of styrene-butadiene dispersions, acrylate, ethylene, vinylacetate dispersions and polyurethane dispersions, wax emulsions and silicone emulsions as release coat (antistick layer).

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.